Model of Spatial Market Areas and Transportation Demand

Start Date: Oct 2004

Projected End Date: Sep 2005

Lead Researcher(s):

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Problem Addressed:

The Corps current navigation planning models define demand (i.e. shippers use of the waterways) in terms of origin (i.e. where a commodity is shipped from) and destination (i.e. where it is shipped to) points. These models make assumptions about how the demand changes in relation to changes in rates. These models typically assume that demand is constant up to a threshold level at which point all traffic moves to an alternative mode of shipping (train, truck, etc.). Concerns about the validity of this assumption have led researchers to investigate other theories.

Objective:

This study investigates the theory that demand is not constant but rather will fall as prices increase until a threshold point is reached at which point all traffic will move to an alternative mode of shipping. The study will examine the responsiveness of port facilities to barge rates, which are a determinant of the price that port facilities offer to shippers located off the river. To the extent that these shippers have alternatives or respond to price changes, the river terminal may ship less down river. The study also will examine market area size, including the influence that the nearness to competition and the price of alternative modes of transportation has on market size and how in turn this effects demand. The study is being conducted using data from the Upper Mississippi River.

Benefits:

The study will help Corps planners to better understand and project demand which will allow for more accurate projections of the cost and benefits of proposed changes to the nations waterways.

Status:

Completed.

Contract Data:

IWR 2004

Progress:

Memo by Kevin Henrickson and Wesley Wilson, January 25, 2005 *(43 KB, pdf)*

Products (Bookshelf/Toolbox):

Paper by Kevin Henrickson and Wesley Wilson, January 25, 2005 *(1.27 MB, pdf)*

Paper by Kevin E. Henrickson and Wesley W. Wilson, Jul 31,2005 *(668 KB, pdf)*

Report by Kevin Henrickson, September 2005 *(788 KB, pdf)*

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Related Links:

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